

Listing of Claims

This listing of claims will replace all prior versions and listings of claims in the application:

1.-23. (Canceled)

24. (Previously Presented) A proximity warning system for a fireplace, the system comprising:

a monitor module coupled to the fireplace and configured to automatically turn on when flames of the fireplace are generated and comprising a sensor to sense when an object is in a predetermined zone proximate to the fireplace,

wherein the monitor module comprises an output element whose output is a function of an amount of a difference between a signal produced by the sensor and a signal from an adjustable reference element pre-adjusted to represent the absence of the object; and

an alarm module coupled to the monitor module to generate an alarm when the monitor module sends a signal to the alarm module indicating that the object is in the zone.

25. (Previously Presented) The system of claim 24, wherein the monitor module is configured to measure capacitance to sense when the object is in the zone.

26. (Previously Presented) The system of claim 24, where the system includes a plurality of monitor modules coupled to the fireplace.

27. (Previously Presented) The system of claim 24, wherein the alarm module is configured to vary an intensity or a frequency or a combination thereof of the alarm depending on a distance within the zone between the object and the fireplace.

28. (Previously Presented) The system of claim 24, wherein a size of the zone can be varied by a user of the fireplace.

29. (Canceled)

30. (Canceled)

31. (Previously Presented) A fireplace including a proximity warning system, the fireplace

comprising:

an enclosure defining a combustion chamber and including at least one exposed surface;
a plate coupled to the at least one exposed surface and including a conductive area;
a capacitance module electrically coupled to the conductive area and tunable to match a capacitance of the conductive area; and an alarm module electrically coupled to the capacitance module to generate an alarm when an object is in a zone proximate the fireplace and thereby causes the capacitance of the conductive area to vary with respect to a capacitance of the capacitance module,

wherein the monitor module comprises an output element whose output is a function of an amount of a difference between a signal produced by the conductive area and a signal from the tunable capacitance, having been tuned to a predetermined value.

32. (Previously Presented) The fireplace of claim 31, wherein the fireplace includes a plurality of exposed surfaces and a plurality of plates coupled to the plurality of exposed surfaces.

33. (Previously Presented) The fireplace of claim 31, wherein the system is configured to automatically turn on.

34. (Previously Presented) The fireplace of claim 33, wherein the system is configured to automatically turn on when the fireplace reaches a given temperature.

35. (Previously Presented) The fireplace of claim 34, wherein the given temperature is an unsafe temperature.

36. (Previously Presented) A method for warning when an object is in a predetermined zone proximate to a fireplace, the method comprising:

turning on a monitor module automatically when the fireplace reaches a given temperature,

wherein the monitor module comprises a sensor and an output element whose output is a function of an amount of a difference between a signal produced by the sensor and a signal from an adjustable reference element pre-adjusted to represent the absence of the object;

monitoring the zone proximate to the fireplace; and

generating an alarm when an object enters the zone.

37. (Previously Presented) The method of claim 36, further comprising varying a size of the zone.

38. (Canceled)

39. (Previously Presented) The method of claim 36, wherein the turning on step further comprises turning on the monitor module automatically when the fireplace reaches an unsafe temperature.

40. (Previously Presented) The system of claim 24, wherein the output element comprises a transistor, a diode, an operational amplifier, a resistor, a capacitor, an inductor, a logic gate, or a combination thereof.

41. (Previously Presented) The system of claim 24, wherein each electrical current passes through a shielded cable.

42. (Previously Presented) The method of claim 36, wherein the output element comprises a transistor, a diode, an operational amplifier, a resistor, a capacitor, an inductor, a logic gate, or a combination thereof.